

System for Processing Measuring Signals from a Sensor

Abstract

A system for processing the measuring signals from a sensor 12, consisting of a first micro-controller 10 comprising an input for the sensor data, a first memory 18, 19 and a first processor 16, and a second micro-controller 24 comprising a second memory 26, 30 and a second processor 27. A bus system 22 is provided that connects the first micro-controller 10 with the second micro-controller 24. The first memory 18, 19 stores data and instructions that are configured so as to be adapted to the sensor 12 and enable the conversion of the signals provided by the sensor 12 into data representing the variable to be measured. The first processor 16 is embodied in such a way that it can execute the instructions stored in the first memory 18, and thereby convert in real-time the measured signals of the sensor 12 into data that represent the measured variable, and transfer these data by way of the bus system 22 to the second micro-controller 24. The second memory 26, 30 stores sensor-independent data and instructions, which enable the processing of the data transferred by the bus system 22, representing the variable to be measured. The second processor 27 is embodied so as to be able to execute the sensor-independent instructions. The invention is, for example, suitable for an electricity consumption meter where the tariff rate structure can be stored in the second memory.